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February 27, 2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : WOLF et. al.

Attorney Docket No.: D-42816-02

Serial No : 09/843,990

Group Art Unit: 3721

Filing Date: April 27, 2001

Examiner: Tran, Louis B.

For: "STACK-SEALING METHOD USING MULTILAYER PACKAGING FILM"

APPEAL BRIEF UNDER 37 C.F.R. 1.192

Commissioner of Patents
Alexandria, VA.

Sir:

This Appeal Brief under 37 C.F.R. 1.192 is submitted in further to the Notice of Appeal filed November 26, 2003 (received in the Mail Room on December 1, 2003), the period for submission of the brief on appeal being extended one month, i.e., through February 1, 2004, by the concurrently-filed petition for a one-month extension of time. Applicant authorizes the Commissioner to charge the brief fee and the extension fee to Deposit Account No. 07-1765. Should any additional fees be deemed necessary, or any

overpayment due, the Commissioner is authorized to charge and/or credit Deposit Account No. 07-1765 in the appropriate amount(s).

Applicant respectfully requests reversal of the various rejections, in view of the arguments presented below.

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REAL PARTY IN INTEREST

The real party in interest in this patent application is Cryovac, Inc., the assignee of a 100% interest in this application.

RELATED APPEALS AND INTERFERENCES

There is no other currently-pending appeal which is related to the instant appeal.

THE STATUS OF THE CLAIMS

The claims on appeal are Claims 21-23 and 25-33.

STATUS OF AMENDMENTS

The Amendment under 37 CFR 1.116 filed 26 November 2003 has been entered. No additional amendments have been submitted after the Final Action.

SUMMARY OF THE INVENTION

The claimed invention is directed to a process for packaging a product. [Page 1 lines 19-20] A first product is placed into a first bag, resulting in a first bagged product. [Page 7 lines 17-27] The first bag comprises a multilayer film having (i) a first layer which is an inside bag layer comprising polyolefin, the inside layer being sealed to itself, (ii) a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane, (iii) a third layer comprising a polyamide having a melting point of 160°C and below; and (iv) a fourth layer, which is an outside bag layer, the fourth layer comprising polyester. [Page 4 lines 16-22] The placing step is then repeated with a second product being placed into a second bag, resulting in a second bagged product. [Page 7 lines 17-27] The first and second bagged products are then stacked on top of one another so that excess bag length on both the first and second bags is with a sealing distance of a means for heat-sealing. [FIG. 5, and Page 7 lines 17-27] The inside layer of the first bag is then heat sealed to itself between the open end of the first bag and the product, and the inside layer of the second bag is heat sealed to itself in the region between the open end of the second bag and the second product, so that the first product is completely sealed within the first bag and the second product is completely sealed with the second bag. [Page 5, lines 17-27] The sealing is carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination. [Page 5, lines 27-29]

ISSUES

The issues on appeal are as follows:

(I) WHETHER CLAIMS 21, 22, 25-27, and 29-33 ARE OBVIOUS OVER HENAUX IN VIEW OF NISHIMOTO ET AL

(II) WHETHER CLAIMS 23 AND 28 ARE OBVIOUS OVER HENAUX IN VIEW OF NISHIMOTO ET AL FURTHER IN VIEW OF OBERLE

THE GROUPING OF THE CLAIMS

For the purpose of this appeal only, Claims 21, 22, 25-27, and 29-33 stand or fall together, and Claims 23 and 28 stand or fall together. Thus, no arguments specific to one claim of each group, but not another, are believed to be necessary at this time. However, Applicants reserve the right to later assert such further and more specific arguments if a continuation application is filed, in litigation of a patent issuing from the instant application, etc.

THE ARGUMENTS

CLAIMS 21, 22, 25-27, AND 29-33 ARE NONOBVIOUS OVER HENAUX IN VIEW OF NISHIMOTO ET AL AND CLAIMS 23 AND 28 ARE NONOBVIOUS OVER HENAUX IN VIEW OF NISHIMOTO ET AL AND OBERLE ET AL

In the 30 June 2003 final Office Action, Claims 21, 22, 25-27, and 29-33 are rejected under 35 U.S.C. 103 as unpatentable over U.S. patent No. 5,845,463, to Henaux ("HENAUX") in view of U.S. Patent No. 5,336,549, to Nishimoto et al ("NISHIMOTO et al"). The Office Action states that HENAUX discloses the invention as claimed including placing a product into a heat-shrinkable bag having an open top and excess bag length, repeating the placing step for a second product, stacking the first and second bagged products so that the excess bag length of each of the bagged products are within a sealing distance of a means for heat sealing, followed by heat sealing the inside layer of the first bag to itself and the inside layer of the second bag to itself, with each product being completely sealed within its respective bag and with the resulting packaged products being freely separable from one another. The Office Action goes on to refer to FIG. 1 of HENAUX as disclosing the stacking of 2 and 3 bagged products on top of one another during heat sealing. The Office Action goes on to acknowledge that HENAUX does not specifically disclose the multilayer film from which the bag film is made, but states that NISHIMOTO et al teaches the recited multilayer film from which the bag is made, i.e., containing a first layer which is an outer layer (and an inside layer of the bag) comprising an ethylene/butene copolymer, a second layer comprising saponified ethylene/vinyl acetate copolymer (which is a polyolefin) and which comprises about 13% of the total film thickness, a third layer

comprising a polyamide having a melt point of 135°C, and a fourth layer comprising polyester (with from 80 to 95 mole percent terephthalate units) having a melt point of 237°C, etc, and that the first layer is sealed to itself and the polyester layer is the outside layer of the bag. On this basis, in the Office Action it is concluded that it would have been obvious to one of ordinary skill in the art to substitute the film of NISHIMOTO et al in the process described by HENAUX, in order to achieve higher quality heat sealing. The Office Action goes on to state that with respect to Claims 27 and 29, although HENAUX does not disclose the recited feature of the polyamide making up at least 40 or 50 percent of the third layer, it would have been obvious to find the optimum weight percent polyamide because discovering an optimum value of a result effective variable involves only routine skill in the art. Finally, with respect to Claim 32, in the Office Action it is admitted that the modified process of HENAUX discloses the claimed invention except for a melting point of from 50-125°C for the polyolefin in the first layer, but then states that finding the optimal melting point range would have been obvious because the general working conditions of this claim are disclosed in the prior art, and discovering the optimum or workable ranges involves only routine skill in the art.

In response, Applicants contend that the final Office Action fails to set forth a prima facie case of obviousness of any one or more of Claims 21, 22, 25-27, and 29-33 as obvious over HENAUX in view of NISHIMOTO et al. Independent Claim 21, the only pending independent claim, recites "...stacking...bagged products...on top of one another...." Moreover, FIG. 5, added at the request of the Examiner, illustrates the meaning of this language, as follows:

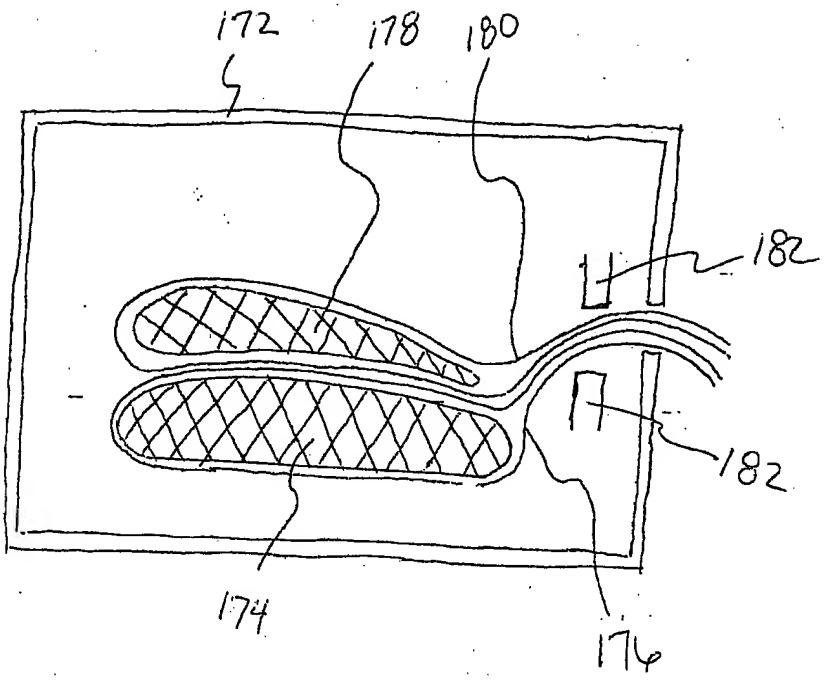

FIG. 5

The Office Action relies upon FIG. 1 of HENAUX (provided immediately below) as showing bags stacked on top of one another and then sealed.

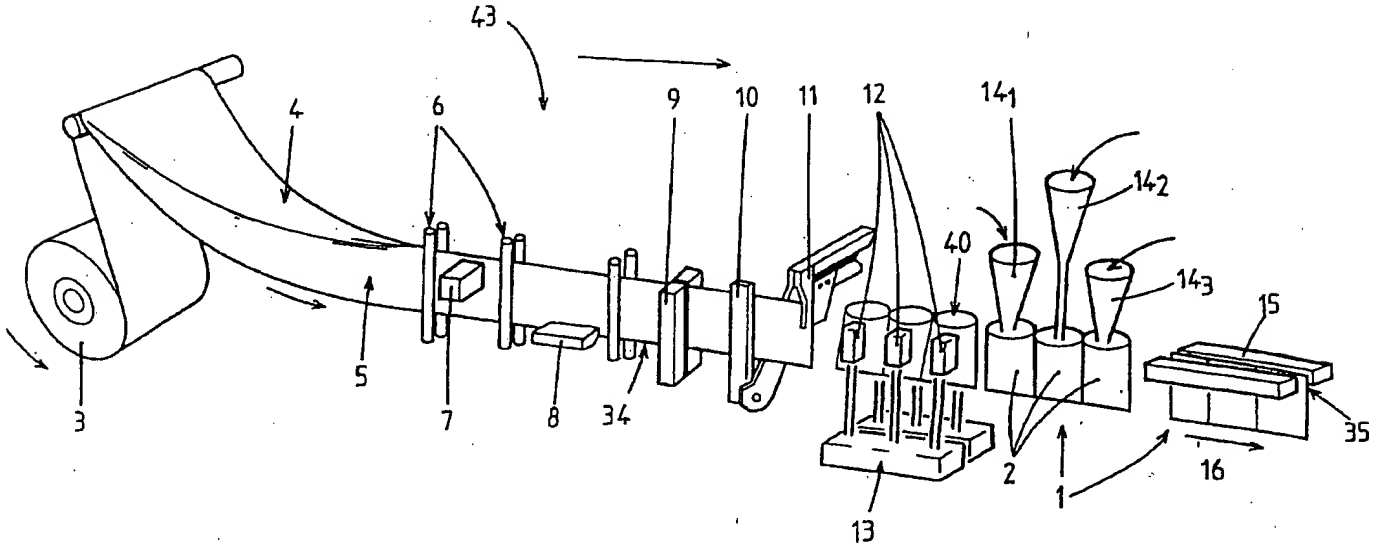

FIG. 1

A comparison of Applicant's FIG. 5 with FIG. 1 of HENAUX immediately reveals that while bags 176 and 180 in Applicants' FIG. 5 are clearly stacked on top of one another, bags 30 in FIG. 1 HENAUX are arranged in a linear relationship in which they are connected to one another along their side edges, with bags 30 NOT being stacked on top of one another. Thus, Applicants' recited feature of the bags being stacked on top of one another is missing from HENAUX. Moreover the Office Action does not rely upon NISHIMOTO et al for this feature either. Thus, the references the Examiner relies upon for the feature of the bags being stacked on top of one another is neither taught nor suggested by either of the documents relied on in the rejection of the claims. As such, it the Office Action clearly fails to set forth a prima facie case of obviousness of any one or more of Claims 21, 22, 25-27, and 29-33.

Applicants also point out that Claim 21 also recites the fourth layer as being the outside layer of the bag and comprising polyester. It is the high melting point of the polyester, relative to the melting point of the first layer (which is the inside layer of the bag, which layer is heat sealed to itself during the sealing step) which allows two or more bags to be stacked on top of one another and sealed in a manner which permits the bags to be freely separated from one another after the sealing is complete, i.e., without the heat from the sealing causing the bags to stick to one another. Thus, there is a relationship between: (a) the composition of the film from which the bags are made, (b) the sealing of two or more bags while they are stacked on top of one another, and (c) the ability to freely separate the bags from one another after sealing, without layer delamination. Thus, features (a), (b), and (c) are interrelated, and the Office Action also fails to set forth a

prima facie case of obviousness because it fails to show that the prior art teaches or suggests that the bags are stacked on top of one another before they are sealed.

Turning to the rejections of Claims 23 and 28, Applicants agree that neither HENAUX nor NISHIMOTO et al teaches or suggests the film of Claim 23 which comprises an O_2-barrier layer, or the film of Claim 28 which has a thickness uniformity of greater than about 20 percent. Applicants contend that regardless of whether these features are taught or suggested by OBERLE et al, there is still no prima facie case of obviousness of Claims 23 and 28 because there has been no showing that any one or more of HENAUX or NISHIMOTO et al or OBERLE et al teaches or suggests that bags be stacked on top of one another and then sealed so that the bags can be freely separated from one another after sealing, without layer delamination.

Accordingly, Applicants contend that both of the §103 rejections relying upon HENAUX should be withdrawn, and the patentability of the claims reconsidered, with a view towards allowance.

Conclusion

Applicant respectfully requests favorable consideration of the appealed claims, with a view towards allowance. Should there be any questions or suggestions, the Examiner is invited to contact the undersigned at the telephone number provided below.

Respectfully Submitted,

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February 26, 2004

Appendix

The claims on appeal are Claims 21-23 and 25-33, as follows:

Claim 21 (previously amended) A process for packaging a product, comprising the steps of:

(A) placing a first product into a flexible, heat-shrinkable bag, the bag having an open top, whereby a first bagged product having excess bag length results, and wherein the bag comprises a multilayer film comprising:

(1) a first layer, which is an inside bag layer, and which comprises polyolefin;

(2) a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane;

(3) a third layer comprising a polyamide having a melting point of 160°C and below; and

(4) a fourth layer, which is an outside bag layer, the fourth layer comprising polyester; and

wherein the bag is produced by sealing the first layer to itself, whereby the first layer is an inside bag layer and the fourth layer is an outside bag layer;

(B) repeating the placing step with a second product and a second bag, whereby a second bagged product results;

(C) stacking at least the first and second bagged products so that the excess bag length of each of the bagged products are on top of one another within a sealing distance of a means for heat-sealing;

(D) heat-sealing the inside layer of first bag to itself in the region between the open end of the first bag and the product, and the inside layer of the second bag to itself in

the region between the open end of the second bag and the product, so that the first product is completely sealed within the first bag and the second product is completely sealed with the second bag, the sealing being carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination.

Claim 22 (original) The process according to Claim 21, wherein the second layer has a thickness of from about 10 to about 50%, based on the thickness of the multilayer film.

Claim 23 (original) The process according to Claim 21, further comprising a fifth layer which serves as an O_2-barrier layer, the fifth layer comprising at least one member selected from the group consisting of EVOH, PVDC, polyalkylene carbonate, polyamide, and polyethylene naphthalate.

Claim 25 (original) The process according to Claim 21, wherein from 2 to 5 bagged products are stacked on top of one another during heat-sealing.

Claim 26 (original) The process according to Claim 25, wherein 2 bagged products are stacked on top of one another during heat-sealing.

Claim 27 (previously added) The process according to Claim 21, wherein the polyamide makes up at least 40 weight percent of the third layer.

Claim 28 (previously added) The process according to Claim 21, wherein the film has a total free shrink, at 185°F, of from about 40 to 170 percent, and the film has a thickness uniformity of greater than about 20 percent.

Claim 29 (previously added) The process according to Claim 21, wherein the polyamide makes up at least 50 weight percent of the third layer.

Claim 30 (previously added) The process according to Claim 21, wherein the polyester comprises from about 80 to about 95 mole percent terephthalate mer units.

Claim 31 (previously added) The process according to Claim 21, wherein the polyamide has a melting point of from about 120°C up to 145°C.

Claim 32 (previously added) The film according to Claim 21, wherein the polyolefin in the first layer has a melting point of from about 50°C to less than 125°C.

Claim 33 (previously added) The film according to Claim 21, wherein the polyester has a melting point of from about 210°C to about 235°C.